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### **REMARKS**

Claims 1-32 are all the claims presently pending in the application. Claims 1, 16, 25 and 28 have been amended to more particularly point out the claimed invention. Attached hereto is a marked-up version of the changes made to the claims by the current Amendment.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-9, 12, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson (U.S. Patent No. 6,016,336), in view of Wolf (U.S. Patent No. 5,737,393), further in view of Polcyn, et al. (U.S. Patent No. 6,061,433). Claims 10-11 and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson, Wolf and Polcyn, further in view of Wu (U.S. Patent No. 6,173,042).

Further, claims 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson, Wolf and Polcyn, further in view of Csaszar, et al. (U.S. Patent No. 5,970,124). Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson, Wolf and Polcyn, further in view of Juster (U.S. Patent No. 5,724,406). Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson in view of Wolf.

These rejections are respectfully traversed in view of the following discussion.

#### **I. THE CLAIMED INVENTION**

Applicant's invention, as disclosed and claimed (e.g., see independent claims 1 and 16), is directed to a method (and system) for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information. The claimed method includes storing a caller profile, accessing the IVR system via a telephone, and retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized

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IVR dialogue menu via the telephone, the personalized IVR dialogue menu including an option for changing the personalized IVR dialogue menu. Further, the personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by the caller.

Conventional IVR methods/systems do not include a personalized IVR dialogue menu which is played out via a telephone and includes an option for changing the personalized IVR dialogue menu. Such conventional methods/systems, therefore, lack flexibility and sophistication.

The claimed invention, on the other hand, retrieves a caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via the telephone. Importantly, the personalized IVR dialogue menu includes an option for changing the personalized IVR dialogue menu. Therefore, the claimed invention is much more sophisticated, user friendly and flexible than conventional methods/systems.

## II. THE PRIOR ART REFERENCES

### A. The Hanson, Wolf and Polcyn References

The Examiner alleges that Hanson would have been combined with Wolf and Polcyn to form the claimed invention of claims 1-9, 12, 15-19, 21-23 and 26-32, and that Hanson and Wolf would have been combined to form the claimed invention of claim 26. Applicant submits, however, that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Hanson discloses an interactive voice response system with call trainable routing. Specifically, Hanson discloses using only the "most recent menu" selection made by the caller and playing it back to the user (Hanson at Abstract).

Wolf discloses a script based IVR system. In the Wolf system, when a menu is activated in response to an incoming call, the activated menu queues appropriate events with a script engine for playing a greeting to the telephone line (Wolf at Abstract).

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Polcyn discloses a system in an automated phone system for obtaining data from sources other than the caller's answer to menu queries, and directing incoming calls to preferred applications based on a customer's usage (Polcyn at Abstract).

However, these references are clearly directed to different matters and solutions and would not have been combined as alleged by the Examiner. Moreover, Applicant respectfully submits that the Examiner has provided insufficient motivation for combining the references as alleged by the Examiner.

Hence, given the completely different problems addressed by the references, let alone those to which the present invention aims to solve, and given the fundamentally different solutions offered by the references to address these disparate problems, there would have been no motivation to combine the references, absent impermissible hindsight.

Moreover, none of these references teaches or suggests *"retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu"* as recited in claim 1 and similarly recited in claims 16 and 28. As noted above, unlike conventional IVR methods/systems which lack flexibility and sophistication (e.g., see Application at Figure 3), the claimed invention plays out (e.g., via the telephone) a personalized IVR dialogue menu which includes an option for changing the personalized IVR dialogue menu (Application at Figures 4 and 6; page 11, lines 17-21). Therefore, the claimed invention is much more sophisticated, user friendly and flexible than conventional methods/systems.

Clearly, these novel features are not taught or suggested by the cited references. Indeed, these references do not even address at least one of the problems (e.g., the large amount of phone keys which a caller must use to navigate an IVR system) which the claimed invention is intended to address.

Specifically, the Hanson system is very limited. It does not allow a caller to personally set up his/her own menu. It also does not teach the concept of constructing a flexible and

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sophisticated personalized menu by the system based on other profile information, including access patterns.

The Examiner attempts to rely on the passage at col. 4, lines 9-17 to support his allegation that Hanson discloses the inventive method and system. However, referring to Figure 3, this passage merely states that "[i]f the caller's ID is stored in the caller ID database 20, the service controller 21 can determine the most recent menu selection made by the caller. The menu selection can then be presented to the caller, in the form of an audio message" (Hanson at col. 4, lines 11-14).

However, nowhere does this passage teach or suggest playing back to a caller a personalized IVR dialogue which includes an option for changing the personalized IVR dialogue menu. Indeed, Hanson merely teaches a system which always automatically presents the caller with a truncated menu manuscript based on the caller's most recent menu selection. Thus, unlike the claimed invention in which the caller can configure his personalized IVR dialogue menu to suit his wants and needs, in Hanson, the menu is always automatically configured by the system (e.g., based on a most recent menu selection) without any input from the caller.

Thus, while Hanson may disclose constructing a menu based on the most recent menu selection made by the caller, this is not the general concept of constructing a personalized menu as defined in Applicant's disclosure. It does not allow the user to define a personalized menu himself/herself. It does not teach the concept of constructing a personalized menu based on other user profile information. For example, in the claimed invention, a personalized dialogue menu, can be defined by the user or be constructed automatically by the system based on the caller profile information. Hanson clearly does not teach such concepts.

Applicant notes that what is retrieved is different between the Hanson system and the claimed system. For example, Hanson retrieves the most recent menu selection made by the caller while the claimed invention may retrieve a user-defined or system-analyzed menu.

Likewise, Wolf does not teach or suggest the novel features of the claimed invention. The Examiner alleges that Wolf discloses a personalized IVR dialogue menu which is

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configurable by the caller at col. 3, lines 28-30 and col. 1, lines 60-64).

However, these passages merely refer to storing instructions for implementing an IVR system in a memory storage device. Wolf may disclose building and operating a custom IVR menu. However, Wolf only discloses building and operating a menu via a computer (Wolf at col. 5, lines 10-15). This is clearly shown, for example, in Figure 3 of Wolf, which only shows how a user may use a computer to create a menu.

Thus, nowhere does Wolf teach or suggest a personalized IVR dialogue menu which is played back via the telephone and includes an option for changing the personalized IVR dialogue menu. In fact, Wolf is completely unrelated to the claimed invention.

Likewise, Polcyn does not teach or suggest the novel features of the invention. Indeed, like Hanson, nowhere does Polcyn disclose allowing the caller to configure his own personalized IVR dialogue menu. Further, the "usage history information" in Polcyn is different from the "access patterns" of the present invention. That is, in Polcyn, only the applications are used, not the paths to the applications. In contrast, the access patterns of the present invention can include both applications and paths to those applications.

Indeed, the system and method of Polcyn is completely different from that of the claimed invention. For example, Polcyn only allows the caller to go directly to the applications or to listen to the standard menu. This is far different from the personalized menu disclosed in the present invention.

Furthermore, any intermediate steps are completely eliminated in Polcyn, which is different from the claimed invention where intermediate steps may still be allowed, if the caller decides to so construct his/her personalized menu. Hence, Applicant respectfully disagrees with the assertion by the examiner that combining Hanson and Polcyn results in the claimed invention (e.g., as recited in claim 2).

Further, there is clearly a problem with combining Hanson with Polcyn as alleged by the Examiner. The so called "personalized" menu (by the Examiner) in Hanson is only the last selection made by the caller. Even if Hanson is combined with Polcyn and the caller is presented

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with selection options, the system still would not have the option of allowing a caller to navigate the IVR system in a flexible manner defined by himself/herself.

Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

**B. The Wu Reference**

The Examiner alleges that Hanson, Wolf and Polcyn would have been combined with Wu to form the claimed invention of claims 10-11 and 24-25. Applicant submits, however, that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Wu discloses a system for enabling personal computer access to an IVR system. The system displays the IVR menu on a computer so that a user can interact with the IVR via a computer (Wu at Abstract).

First, Applicant notes that the Examiner is combining no less than 4 references in making this rejection. Applicant respectfully submits that such a combination is unreasonable and clearly fails to provide a prima facie case of obviousness.

Further, these references are clearly directed to different matters and solutions and would not have been combined as alleged by the Examiner. Moreover, Applicant respectfully submits that the Examiner has provided insufficient motivation for combining the references as alleged by the Examiner.

Hence, given the completely different problems addressed by the references, let alone those to which the present invention aims to solve, and given the fundamentally different solutions offered by the references to address these disparate problems, there would have been no motivation to combine the references, absent impermissible hindsight.

Moreover, like the other references, Wu, does not teach or suggest *"retrieving the caller*

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*profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu" as recited in claim 1 and similarly recited in claims 16 and 28.*

As noted above, the claimed invention plays out (e.g., via the telephone) a personalized IVR dialogue menu which includes an option for changing the personalized IVR dialogue menu (Application at Figures 4 and 6; page 11, lines 17-21). Therefore, the claimed invention is much more sophisticated, user friendly and flexible than conventional methods/systems.

Clearly, these novel features are not taught or suggested by Wu. Indeed, Wu does not even address at least one of the problems (e.g., the large amount of phone keys which a caller must use to navigate an IVR system) which the claimed invention is intended to address.

As noted above, Wu merely discloses displaying the IVR menu on a computer so that a user can interact with the IVR via a computer. Nowhere does Wu teach or suggest a personalized IVR dialogue menu which is played back via the telephone and includes an option for changing the personalized IVR dialogue menu, as in the claimed invention.

Specifically, the Wu system is completely different from the claimed invention. For example, Wu teaches displaying a standard menu on a computer system and allowing a user to select a plurality of destinations that the user wishes to access. Further, Wu teaches a PC to display a standard IVR menu, and allowing a user to choose one or more destinations on the display. These choices are then converted into access paths to an IVR system. Hence, menu selection is not personalized as in the present invention.

Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

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YO999349**C. The Csaszar Reference**

The Examiner alleges that Hanson would have been combined with Csaszar to form the claimed invention of claims 13-14. Applicant submits, however, that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Csaszar discloses a database having information which the consumer desires to know, a database having attributes of the consumer, and a database of advertising messages that an IVR system can deliver to the consumer in response to calls placed to the IVR system (Csaszar at Abstract).

However, Csaszar is completely unrelated to an IVR system and is completely unrelated to the other references. Hence, given the completely different fields of the references, there would have been no motivation to combine the references, absent impermissible hindsight.

Moreover, like the other references, Csaszar does not teach or suggest *"retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu"* as recited in claim 1 and similarly recited in claims 16 and 28.

As noted above, the claimed invention plays out (e.g., via the telephone) a personalized IVR dialogue menu which includes an option for changing the personalized IVR dialogue menu (Application at Figures 4 and 6; page 11, lines 17-21). Therefore, the claimed invention is much more sophisticated, user friendly and flexible than conventional methods/systems.

Clearly, these novel features are not taught or suggested by Csaszar. Indeed, Applicant notes that the Examiner is merely relying on Csaszar as allegedly teaching inserting an advertisement into a caller's personalized IVR dialogue menu. As noted above, Csaszar merely discloses a database of advertising messages that an IVR system can deliver to the consumer in response to calls placed to the IVR system. Thus, Csaszar is completely unrelated to the claimed invention.



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Certainly, Csaszar fails to teach or suggest a personalized IVR dialogue menu which is played back via the telephone and includes an option for changing the personalized IVR dialogue menu, as in the claimed invention. Therefore, Csaszar fails to make up for the deficiencies of the other references.

Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

#### **D. The Juster Reference**

The Examiner alleges that Hanson, Wolf and Polcyn would have been combined with Juster to form the claimed invention of claim 20. Applicant submits, however, that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Juster discloses a call processing system for providing a variety of messaging services. In the Juster system, call processing procedures can be changed or adapted to provide a new or different messaging service without rewriting large amounts of software or redesigning the messaging system (Juster at Abstract).

Moreover, like the other references, Juster does not teach or suggest *"retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu"* as recited in claim 1 and similarly recited in claims 16 and 28.

Clearly, these novel features are not taught or suggested by Juster. Indeed, as noted above, Juster merely discloses a system in which call processing procedures can be changed or adapted to provide a new or different messaging service without rewriting large amounts of software or redesigning the messaging system.

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Further, the Examiner merely relies on Juster as allegedly disclosing a dialogue handler. However, nowhere does Juster teach or suggest the features of the claimed invention. Indeed, the Juster system is completely unrelated to the claimed invention.

Certainly, Juster fails to teach or suggest a personalized IVR dialogue menu which is played back via the telephone and includes an option for changing the personalized IVR dialogue menu, as in the claimed invention. Therefore, Juster fails to make up for the deficiencies of the other references.

Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

### III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-32, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.


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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Date: 5/28/03

Respectfully Submitted,



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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that the foregoing Response was filed by facsimile with the United States Patent and Trademark Office, Examiner Olisa Anwah, Group Art Unit # 2645 at fax number (703) 872-9314 this 28<sup>th</sup> day of May, 2003.



Phillip E. Miller, Esq.

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YO999349**VERSION WITH MARKINGS TO SHOW CHANGES MADE****IN THE CLAIMS:****Please amend the claims to read as follows:**

1. (Amended) A method for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, comprising:  
storing a caller profile;  
accessing said IVR system via a telephone; and  
retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu,  
wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.
16. (Amended) A system for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, comprising:  
a storage device for storing a caller profile;  
a telephone for accessing said IVR system; and  
a retrieval unit for retrieving the caller profile to construct a personalized IVR dialogue menu and play-out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu,  
wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.
25. (Amended) The system according to claim 16, wherein said retrieval unit further includes:  
a personalized menu processor module for constructing said shortcut for the personalized

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menus specified by said caller,

wherein specification is selectively performed over one of a telephone interaction and a world-wide network, and

wherein a [once specified by said caller, the] personalized menu specified by said caller is represented by one of a list of direct dialogue paths to desired information and a hierarchical dialogue menu.

28. (Twice Amended) A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, said method comprising:

storing a caller profile;

accessing said IVR system via a telephone; and

retrieving the caller profile to construct a personalized IVR dialogue menu and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising an option for changing said personalized IVR dialogue menu,

wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.